بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

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Comparative Study between Early Versus Delayed Laparoscopic Cholecystectomy in Mild Acute Gall Stone Pancreatitis

Thesis

For Partial Fulfillment of Master Degree
in **General Surgery**

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قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم الحكيم

صدق الله العظيم

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Mohammed Ibrahim Ali Ahmed

Dedication

To my professors……..

To my family……...

To my patients……..

To my colleagues…….…..

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List of Abbreviations

Abb.	Full term
ABP	*Acute Biliary Pancreatitis*
AGA	*American of gasteroentrology association*
APACHE-II	*Acute physiology and chronic health evaluation*
AST	*Aspartate aminotransferase*
BISAP	*Bedside Index of Severity in Acute Pancreatitis*
BUN	*Blood urea nitrogen*
CBD	*Common bile duct*
CD	*Cystic duct*
CHD	*Common hepatic duct*
CTSI	*CT severity index*
GDA	*Gastroduodenal artery*
HES	*Hydroxyethyl starch*
LC	*Laparoscopic cholecystectomy*
LD	*Lactate dehydrogenase*
LHA	*Left hepatic artery*
PSPDA	*Posterior superior pancreaticoduodenal artery*
RASD	*Right anterior sectoral duct*
RHD	*Right hepatic duct*
RPSD	*Right posterior sectoral duct*
SAP	*Simplified acute physiology*
SMV	*Superior mesenteric vein*
SSLC	*Single site laparoscopic cholecystectomy*
SV	*Splenic vein*
WBC	*White blood cells*

INTRODUCTION

Gall bladder disease is among the leading causes for hospital admission for acute abdomen among adults and the most common indication for abdominal surgery in the elderly ***(Ukkonen et al., 2015).***

Gallstones are common and present as acute calcular cholecystitis (ACC) in 20 % of patients with symptomatic disease, with wide variation in severity. In developed countries, 10–15 % of the adult population is affected by gallstones ***(Shaffer, 2005).***

With gallstone being leading etiology, acute pancreatitis is one of the most common reported gastrointestinal diseases for acute hospital admission with increasing incidence. Of all cases of acute pancreatitis, mild pancreatitis constitutes about 80% and has the characteristics of recovering within one to two weeks, self-limited and low mortality ***(Wang et al., 2015).***

Acute Pancreatitis (AP) is an inflammatory disease of the pancreas that is associated with little or no fibrosis of the gland, and which may be followed by clinical and biological restitution, if the primary cause is eliminated. Clinically, the severity of AP varies significantly. Most patients experience a mild form of the disease, which is self-limiting, while others suffer a more severe and sometimes a fatal attack. Mild form constitutes about 80% of cases with a mortality around 1%,

while severe attack occurs in rest 20% of cases which is associated with mortality ranging from 20% to 50%. One major cause of acute pancreatitis (AP) is biliary calculi, which accounts for about 50-70% of cases presenting with this disease ***(Bhattacharya, 2008).***

Patients who have small gallstones and a wide cystic duct may be at a higher risk of passing stone. Gall stone migration with obstruction of the CBD and pancreatic duct triggers Acute Biliary Pancreatitis (ABP) ***(Acosta and Ledesma, 1974).***

The standard treatment for symptomatic cholecystitis associated with gallstones is cholecystectomy. Laparoscopic cholecystectomy (LC) has replaced conventional open cholecystectomy and has become the gold standard of treatment for acute cholecystitis (AC).

Current guidelines recommend laparoscopic cholecystectomy for biliary pancreatitis to reduce the recurrence rate of biliary tract related events ***(Greenberg et al., 2016).***

The timing of cholecystectomy in patients with clinically severe pancreatitis, with local complications such as pancreatic necrosis and organ failure, is deliberately delayed until local complications have resolved, typically after approximately 6 weeks ***(Nealon et al., 2004).***

However, there is no consensus on the optimal time of laparoscopic cholecystectomy (LC) for patients with mild biliary pancreatitis. International guidelines advise to perform LC as soon as the patient has recovered during the same admission ***(Li et al., 2019; Yokoe et al., 2015).***

A prospective randomized controlled study in American, referenced by many guidelines and reviews, showed that compared with delayed LC, early LC within 48 h can shorten the length of hospital stay, and reduce the biliary related recurrent events, and it does not increase the difficulty of the operation and the incidence of surgical complications ***(Aboulian et al., 2010).***

A prospective study was conducted at Indira Gandhi medical college Shimla, a tertiary care center, over a period of one year. A total patients were divided in two groups (I and II). Group l patients of mild AP who were operated during the same admission i.e. within 8days of the acute mild pancreatitis. Group II other patients of mild AP who had a delayed laparoscopic cholecystectomy (LC), i.e. after 4-6 weeks of illness. Shows that Laparoscopic cholecystectomy during the early period of acute mild biliary pancreatitis is safe, effective and feasible. It causes a significant reduction in the length of hospital stay with no significant increase in the complications or mortality ***(Sharma et al., 2018).***